

### **REMARKS**

Claims 1-4, 8-10 and 12-50 are pending as shown above. In view of the following remarks, Applicant submits that pending claims 1-4, 8-10, and 12-50 are in condition for allowance.

#### **Request to Withdraw Finality**

Applicants respectfully request that the Office withdraw the finality of this Office Action and issue another non-final Office Action in this case. This request is made because the newly presented rejections were not necessitated by Applicants' previous amendments.

As indicated in M.P.E.P. 706.07(a), final rejection is not proper when it is not necessitated by Applicants' amendments. Applicants' previous amendments made in the paper filed on October 6, 2003, did not affect the Office's ability to apply Ohkubo in the previous Office Action as the previously pending claims were directed to methods involving images that included bone. Therefore, there is absolutely no reason that the rejections newly-presented in the Office Action mailed August 19, 2003 could not have been made previously. In other words, Applicants' amendments did not necessitate the newly presented rejections. Accordingly, Applicants herein request that the outstanding Office Action be considered non-final and this response be treated accordingly.

#### **Rejections Under 35 U.S.C. § 103(a)**

##### **A. Claims 1-4, 8-10, 12-31 and 48-50 over Inga in view of Ohkubo**

Claims 1-5, 13-31 and 48-50 stand rejected as allegedly obvious over U.S. Patent No. 5,384,643 (hereinafter "Inga") in view of U.S. Patent No. 6,449,502 (hereinafter "Ohkubo"). (Final Office Action, paragraphs 3-24). The Final Office Action states, in part:

It would have been obvious to modify the method of Inga et al. such that it incorporated the step of determining quantitative information of bone from an x-ray image at a remote computer. One could have been motivated to make such a modification, since quantitative information of x-ray images can be obtained by simply noting attenuation differences within an x-ray image as taught by Ohkubo. (Final Office Action, paragraph 8).

The Examiner makes similar unsupported conclusions regarding the alleged motivation to

arrive at the claimed methods in paragraphs 10, 13, 15, 17, 19, 22 and 24 of the Final Office Action.

Because a *prima facie* case of obviousness has not been, and indeed cannot be, established, Applicants traverse the rejections.

The Federal Circuit has repeatedly held that there can be no basis for concluding that an invention would have been obvious solely because it is a combination of elements that were known in the art at the time of filing. *See, e.g., Smiths Industries Medical Systems, Inc. v. Vital Signs, Inc.* 51 USPQ2d 1415, 1420-1421 (Fed. Cir. 1999). The relevant inquiry is whether there is motivation, reason or suggestion in the references that would lead one of ordinary skill in the art to combine the teachings of the references. *Id.*, emphasis added. Using an applicant's disclosure as a blueprint to reconstruct the claimed invention from isolated pieces of the references is impermissible. Not only must the suggestion be found in the references themselves, the burden remains on the Office to indicate, with particularity (*e.g.*, page, line or figure), where the motivation or suggestion to make the combination appears in the references. *See, e.g., In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993), emphasis added. In the absence of the necessary motivation or suggestion in the references, the rejection is considered to be based on improper "hindsight reconstruction." (*see, e.g., In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) and *In re Napier* 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) stating that "obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion or incentive supporting the combination.").

There is no suggestion in either reference to arrive at the claimed methods. Inga is silent as to x-ray images comprising bone. Moreover, nowhere does this reference suggest that bone-including images could be transmitted from a remote computer for analysis. For its part, Ohkubo is completely silent as to digitizing x-ray images including bone or transmitting these images, as claimed. Obviousness cannot be established by asserting that the individual elements were known and that the motivation to combine somehow derives from unrelated disclosures of these elements. Simply put, there is absolutely no suggestion or reason given in either Inga or Ohkubo to combine their teachings to arrive at the claimed methods. Therefore, the obviousness rejection is based on improper hindsight reconstruction and should be withdrawn.

B. Claims 32-45 and 47 over Chiabrera

Claims 32-45 and 47 stand rejected as allegedly obvious U.S. Patent No. 5,917,877 (hereinafter "Chiabrera"). (Final Office Action, paragraphs 25-43). The Office Action asserts, in part:

It would have been obvious to modify the apparatus of Chiabrera et al. such that it incorporated a calibration phantom comprising a marker of known density. One would have been motivated to make such a modification so that the marker serves as a positioning indicator for the phantom as well as an indicator for the attenuation of attributes of the phantom at the indicated position as suggested by Chiabrera et al. Additionally, it is the position of the examiner that the patterning of the markers would not deviate from the scope and spirit of the disclosed invention. Office Action, paragraph 29.

Paragraphs 35 and 38 of the Final Office Action make analogous unsupported statements regarding the alleged motivation to modify Chiabrera to arrive at the subject matter of claims 32-45 and 47.

As with the rejections based on Inga discussed above, Applicants traverse the rejection because a *prima facie* case of obviousness cannot be established.

The Office admits that Chiabrera does not teach that a calibration phantom should be placed in an area of known density. (Office Action, paragraph 27). Nonetheless, the Office asserts, without pointing to particular passages or Figures as required, that Chiabrera somehow would have motivated one of skill in the art to arrive at the claimed devices. In reality, Chiabrera is completely silent in this regard, focusing entirely on the materials making up the calibration phantom. This reference, like the art as a whole, assumes that placement alongside the bone is sufficient to ensure accuracy and provides no motivation or suggestion to move the calibration phantom such that it projects in an area of known density. *See, e.g.*, Chiabrera, col. 6, lines 41-44 and claims. Teaching that calibration phantoms can be useful is a far cry from recognizing or suggesting that tissues projecting with the calibration phantom could affect its apparent density, as disclosed and claimed by Applicants. *See, e.g.*, page 31, lines 14-27 of the application.

Thus, because there is no motivation, suggestion or reason given in Chiabrera to place the calibration phantom in an area of known density, Applicants can only conclude that the rejection is improperly based on hindsight reconstruction. Accordingly, withdrawal of this rejection is

respectfully requested.

C. Claim 46 over Chiabrera in view of Inga

Claim 46 stands rejected as allegedly obvious over Chiabrera in view of Inga. (Final Office Action, paragraphs 40-43). The Final Office Action alleges, "it would have been obvious to modify the method of Chiabrera such that it incorporated the step of comparing performed in a network environment. One would have been motivated to make such a modification so that analysis could be accentuated by the ability to access several image and patient data from an archive source as taught by Inga et al. (Abstract, column 3, lines 17-45)." (Final Office Action, paragraph 43).


Claim 46 depends ultimately from claim 32. As such, the method of claim 46 requires the use of an assembly in which the calibration phantom is positioned in an area of known density. For the reasons of record and those detailed above in section C, both the art as a whole and Chiabrera in particular fail to teach or suggest placement of a calibration phantom in any area of known density. Accordingly, there is no combination of Chiabrera and Inga that would reasonably lead one of skill in the art to the method of claim 46.

**CONCLUSION**

Applicant submits that the claims are in condition for allowance and request early notification to that effect. If the Examiner has any further issues or wishes to discuss any of the foregoing, she is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,

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